

Amendments to the Claims

1. (Currently Amended) In a computer system, a method of converting video data for a video image to a lower-precision representation for lower-precision processing of the video data, the method comprising:

receiving digital video data in a hybrid planar format containing video data with chroma and luma information and a header with a four-character format code, the chroma and luma information for a pixel in the video image being in an n-bit representation, the n-bit representation comprising a 16-bit fixed-point block of data per channel for the pixel comprising a most significant byte comprising 8 bits and a least significant byte comprising 8 bits, where the most significant byte in the 16-bit unit of data is an integer component comprising values each with a specific position relative to the 16-bit unit of data, and where the least significant byte in the 16-bit unit of data is a fractional component, wherein the four-character format code comprises:

a first character which indicates the format is:

a hybrid planar format wherein luma information for each of plural pixels in a video image is stored in a first array of memory and wherein chroma information for each of the plural pixels in the video image is stored in a second array of memory;

a second character based on chroma sampling in the format; and

third and fourth characters based on a bit precision of the format;

converting the n-bit representation to a lower-precision (n-m)-bit representation by splitting the fractional component into a first portion comprising m least significant bits of the fractional component wherein m is less than 8, and further splitting the fractional component into a second portion comprising 8-m most significant bits of the fractional component, and assigning zero values to the first portion of the fractional component while the values and the specific positions of the values of the integer component and the second portion of the fractional component are unchanged;

modifying the third and fourth characters of the four-character format code to indicate the bit precision of the lower-precision (n-m)-bit representation; and

outputting a result of the converting.

2. (Previously Presented) The method of claim 1 wherein the n-bit representation is a 16-bit representation and the lower-precision (n-m)-bit representation is a 10-bit representation.

3. (Canceled)

4. (Original) The method of claim 1 wherein the chroma information is sampled at a resolution less than the luma information.

5.-34. (Canceled)

35. (Previously Presented) The method of claim 1 wherein the n-bit representation is a 16-bit representation, and wherein the (n-m)-bit representation is a 10-bit representation.

36. (Previously Presented) The method of claim 1 further comprising processing data in the (n-m)-bit representation using (n-m)-bit hardware.

37. (Previously Presented) The method of claim 36 wherein the (n-m)-bit hardware comprises a 10-bit processor.

38. (Previously Presented) The method of claim 1 wherein the n-bit representation and the (n-m)-bit representation are associated with different FOURCC codes.

39. (Previously Presented) The method of claim 1 wherein one or more alpha values are associated with the video image.

40. (Currently Amended) A computer system comprising:

means for receiving digital video data in a hybrid planar format containing video data with chroma and luma information for at least one pixel in a video image and a header with a four-character format code, the chroma and luma information being in an n-bit representation, the n-bit representation comprising a 16-bit fixed-point block of data per channel for the pixel

comprising a most significant byte comprising 8 bits and a least significant byte comprising 8 bits, where the most significant byte in the 16-bit unit of data is an integer component comprising values each with a specific position relative to the 16-bit unit of data, and where the least significant byte in the 16-bit unit of data is a fractional component, wherein the four-character format code comprises:

a first character which indicates the format is;

a hybrid planar format wherein luma information for each of plural pixels in a video image is stored in a first array of memory and wherein chroma information for each of the plural pixels in the video image is stored in a second array of memory;

a second character based on chroma sampling in the format; and

third and fourth characters based on a bit precision of the format;

means for converting the n-bit representation to a lower-precision (n-m)-bit representation by splitting the fractional component into a first portion comprising m least significant bits of the fractional component wherein m is less than 8, and further splitting the fractional component into a second portion comprising 8-m most significant bits of the fractional component, and assigning zero values to the first portion of the fractional component while the values and the specific positions of the values of the integer component and the second portion of the fractional component are unchanged;

means for modifying the third and fourth characters of the four-character format code to indicate the bit precision of the lower-precision (n-m)-bit representation; and

means for outputting a result of the converting.

41. (Previously Presented) The computer system of claim 40 wherein the n-bit representation is a 16-bit representation and the lower-precision (n-m)-bit representation is a 10-bit representation.

42.-43. (Canceled)

44. (Previously Presented) The computer system of claim 40 wherein the n-bit representation and the lower-precision (n-m)-bit representation are represented by different FOURCC codes.

45. (Canceled)

46. (Previously Presented) The computer system of claim 40 further comprising means for displaying the video image using the lower-precision (n-m)-bit representation.

47. (Previously Presented) The computer system of claim 40 wherein the n-bit representation and the lower-precision (n-m)-bit representation are most-significant-bit justified.

48. (Previously Presented) The computer system of claim 40 wherein the chroma information and the luma information are in a YUV color space.

49. (Previously Presented) The method of claim 1 wherein the n-bit representation and the lower-precision (n-m)-bit representation are most-significant-bit justified.

50. (Previously Presented) The method of claim 1 wherein the chroma information and the luma information are in a YUV color space.

51. (Currently Amended) One or more computer-readable storage media having computer-executable instructions stored thereon for causing a computer to perform a method comprising:

receiving digital video data in a hybrid planar format containing video data with chroma and luma information for a pixel in the video image in an n-bit representation and a header with four-character format code, the n-bit representation comprising a 16-bit fixed-point block of data per channel for the pixel comprising a most significant byte comprising 8 bits and a least significant byte comprising 8 bits, where the most significant byte in the 16-bit unit of data is an integer component comprising values each with a specific position relative to the 16-bit unit of

data, and where the least significant byte in the 16-bit unit of data is a fractional component, wherein the four-character format code comprises:

a first character which indicates the format is:

a hybrid planar format wherein luma information for each of plural pixels in a video image is stored in a first array of memory and wherein chroma information for each of the plural pixels in the video image is stored in a second array of memory;

a second character based on chroma sampling in the format; and

third and fourth characters based on a bit precision of the format;

converting the n-bit representation to a lower-precision (n-m)-bit representation by splitting the fractional component into a first portion comprising m least significant bits of the fractional component wherein m is less than 8, and further splitting the fractional component into a second portion comprising 8-m most significant bits of the fractional component, and assigning zero values to the first portion of the fractional component while the values and the specific positions of the values of the integer component and the second portion of the fractional component are unchanged;

modifying the third and fourth characters of the four-character format code to indicate the bit precision of the lower-precision (n-m)-bit representation; and

outputting a result of the converting.

52. (Previously Presented) The computer-readable storage media of claim 51 wherein the n-bit representation is a 16-bit representation and the lower-precision (n-m)-bit representation is a 10-bit representation.

53. (Previously Presented) The computer-readable storage media of claim 51 wherein the n-bit representation and the lower-precision (n-m)-bit representation are most-significant-bit justified.